

**REMARKS**

The Official Action mailed January 28, 2008, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to May 28, 2008. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on July 24, 2003; March 29, 2006; and April 24, 2007.

Claims 1-21 were pending in the present application prior to the above amendment. Claims 2, 4, 6, 8, 10 and 12-18 have been withdrawn from consideration by the Examiner. Claims 1, 3, 5, 7, 9, 11 and 19-21 are elected, of which claims 1, 3 and 5 are independent. Claims 1, 3, 5 and 19-21 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 1, 3, 5, 7, 9, 11 and 19-21 as obvious based on the combination of U.S. Patent No. 6,333,493 to Sakurai, U.S. Patent No. 6,105,274 to Ballantine and U.S. Publication No. 2002/0008098 to Buchner. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the

combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Specifically, independent claims 1, 3 and 5 have been amended to recite heating a treatment substrate by irradiating it with a radiation from a lamp light source which is held for 0.1 to 20 seconds where a temperature rise rate of the treatment substrate is 100 to 200° C per second, while supply of a first inactive gas is kept in a processing chamber so that a first inactive gas passes along an irradiated surface of the treatment substrate and a surface opposite to the irradiated surface of the treatment substrate; and cooling the treatment substrate where a temperature drop rate of the treatment substrate is 50 to 150° C per second, while supply of a second inactive gas is kept in the processing chamber so that the second inactive gas passes along the irradiated surface of the treatment substrate and the surface opposite to the irradiated surface of the treatment substrate. These features are supported in the present specification, for example, by Figures 1 and 4. That is, an inactive gas passes along an irradiated surface of a treatment substrate and a surface opposite to the irradiated surface of the treatment substrate during heating and cooling. Sakurai, Ballantine and Buchner, either alone or in combination, do not teach or suggest the above-referenced features of the present invention. On the other hand, Sakurai, Ballantine and Buchner do not disclose the features. For example, in Ballantine, it appears that a cooling medium passes along one of a pair of substrates of a treatment substrate (see, e.g., Figure 3). However, Sakurai, Ballantine and Buchner, either alone or in combination, do not teach or suggest the above-referenced features of amended claims 1, 3 and 5.

Since Sakurai, Ballantine and Buchner do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 3 of the Official Action rejects claims 1, 3, 5, 7, 9, 11 and 19-21 under the doctrine of obviousness-type double patenting over the combination of claims 13-24 of U.S. Patent No. 7,179,729 to Dairiki, Ballantine and Buchner. Paragraph 4 of the Official Action rejects claims 1 and 19 under the doctrine of obviousness-type double patenting over the combination of U.S. Patent No. 6,759,313 to Yamazaki, Ballantine and Buchner. The Applicant respectfully submits that the amended independent claims of the subject application are patentably distinct from the alleged combination of the features of the claims of the Dairiki '729 or Yamazaki patents, Ballantine and Buchner.

As stated in MPEP § 804, under the heading "Obviousness-Type," in order to form an obviousness-type double patenting rejection, a claim in the present application must define an invention that is merely an obvious variation of an invention claimed in the prior art patent, and the claimed subject matter must not be patentably distinct from the subject matter claimed in a commonly owned patent. Also, the specification and drawings of the patent principally underlying the double patenting rejection are not considered prior art.

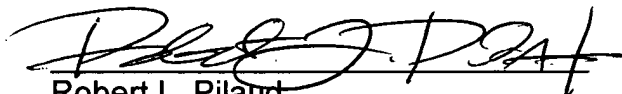
As is discussed in greater detail above, the independent claims have been amended to better recite the features of the present invention. In light of this amendment, the Applicant respectfully traverses this ground for rejection and reconsideration of the pending claims is respectfully requested. In any event, the Applicant respectfully requests that the double patenting rejections be held in abeyance until an indication of allowable subject matter is made in the present application. At such time, the Applicant will respond to any remaining double patenting rejections.

It is respectfully submitted that the claims of the present application are not a timewise extension of the invention as claimed in the Dairiki '729 or Yamazaki patents,

either alone or in combination with Ballantine and Buchner. Reconsideration and withdrawal of the obviousness-type double patenting rejections are requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Robert L. Pilaud", written over a horizontal line.

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